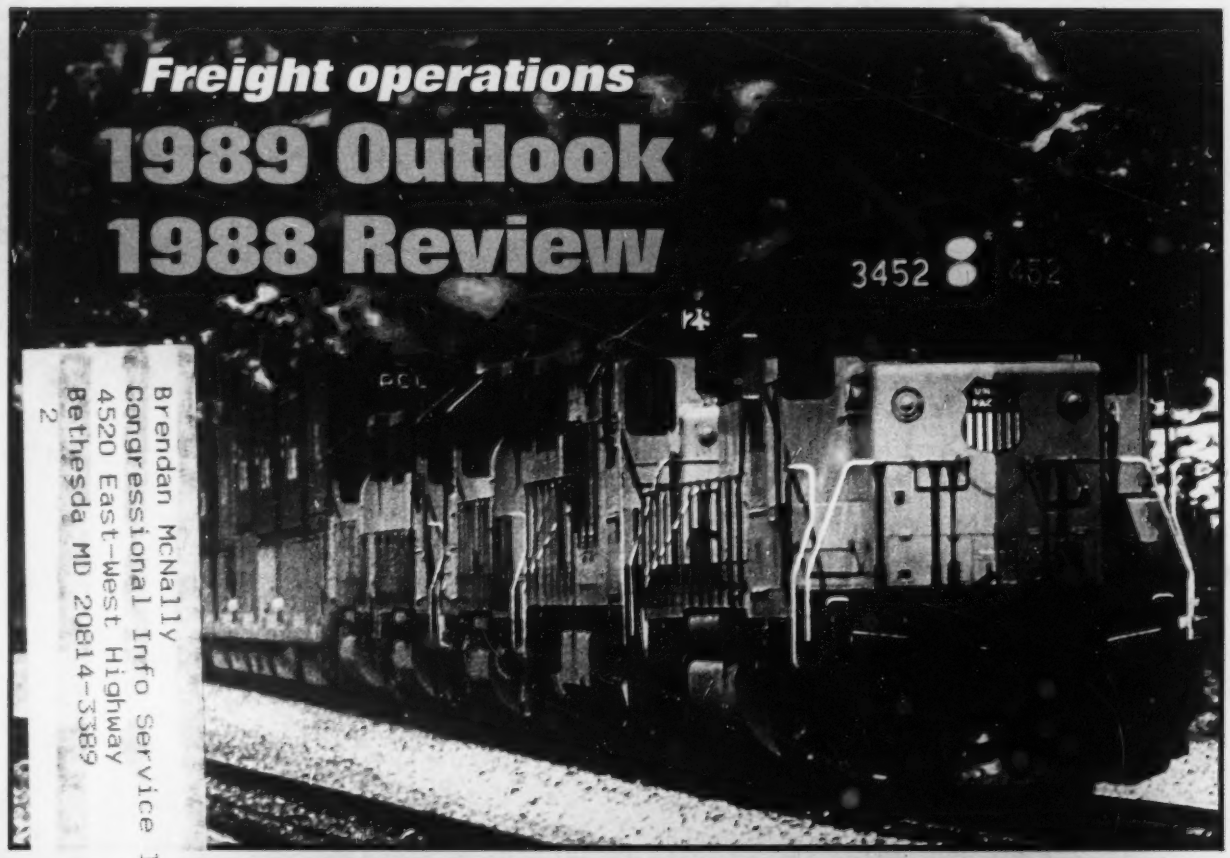
CS4100-1
12/30/88 A

December 1988

Railway Age

...for the new age of railways and rail transit



Brendan McNally
Congressional Info Service Inc
4520 East-West Highway
Bethesda MD 20814-3389
2

December 1988

Railway Age

...for the new age of railways and rail transit

Freight operations

1989 Outlook
1988 Review

23 Comeback—or crisis?

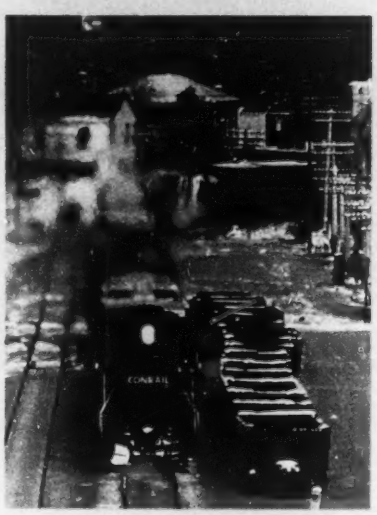
1989's big questions: Will railroads be able to maintain the momentum that brightened bottom lines in '88? And how will they fare in key labor and legislative battles?

27 Winning the numbers game

Almost any way you figure it, the railroads looked good in '88—in traffic, in earnings, in plant and equipment improvements. Best of all, they repelled the reregulators.

30 The 5 toughest questions

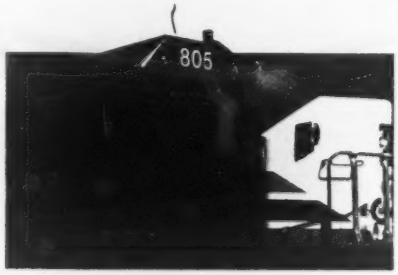
Railroad adversaries have a bagful of tricky questions clothed in half-truths. Here are some of the toughest questions you can expect next year, and some answers.



Features

32 Tri-Rail is ready to roll

Gallery cars are common in the U.S., but the UTDC cars that will go into service next month on Florida's first commuter rail line will be the nation's first true bi-levels.



37 Pittsburgh: More light rail?

In Stage I of a modernization program, PAT brought 10.5 miles of a 26-mile streetcar system up to light rail standards. What happens next is the subject of a study.

43 Wanted: A better wheel profile

The VTS Newsletter describes the ongoing search for "a wheel shape that will reduce wheel and rail wear, and associated energy consumption."

Comment

6 Inside
8 Lines on Labor
11 Watching Washington

Departments

9 Industry Outlook
10 Market Outlook
36 Meetings
52 People in the News
55 Products
56 New Literature
61 Classifieds
64 Advertisers Index
66 100 Years Ago

Update

13 GE and GM split 212-unit order
13 BN prices up 3.5% in third quarter
13 NS to computerize car distribution
13 CSX cuts 200 jobs
15 Articulated cars win ATSF vote
15 UP will double BulkTainer fleet
15 Computer collects TT repair data
15 CP workers win REB achievement awards
17 Bechtel leads new BART team
17 LACTC tie-setter sets a fast pace
17 California studies high speed options

UP cover photo by Gary J. Benson

Published monthly by the Simmons-Boardman Publishing Corporation, 345 Hudson St., New York, NY 10014 USPS 449-130, Vol 189, No. 12

Subscriptions: RAILWAY AGE is sent without obligation to all Class I railroads, regional and short line railroad, light and rapid rail transit, private car lines, industrial owners of rolling stock, utility and energy personnel in railroad management and supervision in the executive and administration departments, marketing and sales departments, purchasing and materials departments, operations, mechanical, engineering and communications and signaling departments in the United States, Canada and Mexico. Subscriptions should be requested on company letterhead. Subscription price to others: $4.00 per copy, $35.00 per year in the U.S., Canada and Mexico. Foreign $50.00 (U.S. funds). All subscriptions payable in advance. Copyrighted © 1988.

Address all subscriptions, change of address forms and correspondence concerning them to Subscription Dept., Railway Age, 345 Hudson St., New York, NY 10014

Printed at Hughes Printing Co., 34 North Crystal St., East Stroudsburg, PA 18301. Second Classs postage paid by Simmons-Boardman Publishing Corp., 345 Hudson St., New York, N.Y. 10014 ISSN 0033-8826.

POSTMASTER—Send change of address forms to Simmons-Boardman, 345 Hudson St., New York, NY 10014.

Market Outlook

Equipment

BC Rail: Is assembling 160 73-foot, center beam cars at its Squamish shops from kits supplied by Daewoo of South Korea through Transcisco Industries of San Francisco. BC Rail directors late last year approved expenditure of $10 million (Canadian) for the cars, and Transcisco submitted the lowest acceptable bid. Trancisco's original plan was to assemble the cars at the Miles City, Mont., plant of its subsidiary, Railcar Maintenance Co. (RMC). It was decided to do the work at Squamish in order to keep costs within budget. Assembly is to be completed in March 1989.

CP Rail: Awarded a contract to the Harris Corp. Controls and Composition Division for 25 LOCOTROL II systems to complete replacement of existing LOCOTROL 105 equipment on CP's heavy-haul locomotives in western Canada.

CSX Transportation: Will acquire 2,094 new multi-level cars valued at $70.4 million over a three-year period—644 ordered under the 1988 equipment program; 800 in 1989; and 650 in 1990. Orders for the first 1,444 cars have been awarded to Thrall Car.

Massachusetts Bay Transportation Authority: Awarded a $20-million (Canadian) contract to Bombardier of Montreal to refurbish 18 F40PH diesel-electric locomotives built by Electro-Motive in 1988.

Southern Pacific: Will acquire 50 new diesel-electric locomotives in 1989 at a cost in excess of $50 million—30 3,800-hp GP60 units from the Locomotive Group of General Motors and 20 4,000-hp B40-8 units from General Electric. SP said the new order will supplement more than 150 new or rebuilt diesel locomotives that are being added to the SP/Denver & Rio Grande Western fleet this year. These include 60 new units delivered under a 1987 order, 50 new units being delivered this year on 1988 orders, and 40 rebuilt SP units.

Union Pacific: Ordered 212 new diesel-electric units at a cost of $279 million—106 4,000-hp DASH 8-40Cs from General Electric and 106 3,800-hp SD60s from the Locomotive Group of General Motors.

Revenue freight carloadings

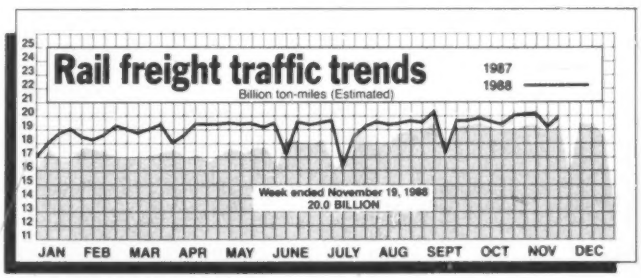
Commodity	Nov. 19 week	Nov. 12 week	Nov. 5 week	Oct. 29 week	Oct. 22 week
Grain	28,738	27,039	31,332	29,038	30,713
Other farm products	4,332	3,766	3,194	3,410	4,168
Metallic ores	20,897	21,103	23,446	25,493	25,107
Coal	133,077	131,263	131,146	125,692	126,630
Crushed stone, gravel and sand	17,500	17,312	18,433	19,084	19,139
Nonmetallic minerals	9,999	9,888	10,154	10,707	11,072
Grain mill products	10,829	10,794	11,099	10,787	10,949
Food and kindred products	11,333	11,323	11,934	11,674	11,932
Primary forest products	10,325	9,839	9,584	9,589	10,052
Lumber and wood products except furniture	7,247	7,144	7,275	7,951	7,371
Pulp, paper and allied products	11,458	11,163	11,671	11,715	11,281
Chemicals and allied products	29,010	28,251	28,473	28,141	29,003
Petroleum products	5,250	5,142	5,218	5,240	5,215
Stone, clay and glass products	10,846	11,183	11,512	11,630	12,006
Coke	5,478	5,699	5,595	5,970	5,492
Metals and products	9,878	9,935	9,830	10,584	10,075
Motor vehicles and equipment	23,220	24,162	23,277	23,002	22,316
Waste and scrap materials	9,908	9,665	9,793	10,083	10,246
Forwarder and shipper assn. traffic	2,305	2,291	2,585	2,515	2,422
All other carloads	90,188	88,234	91,142	91,982	88,678
Total Cars Loaded	**451,818**	**445,196**	**456,694**	**454,287**	**454,167**
% change from previous year	1.9	2.7	2.5	0.8	3.2
Estimated revenue ton-miles (billions)	20.0	19.9	20.2	20.1	20.0
% change from previous year	1.8	2.5	2.3	0.5	1.7

Total:	1988	1987	% change
46 weeks	887.4	836.7	6.1

Piggyback loadings

	Nov. 12 week	Nov. 5 week	Oct. 29 week	Oct. 22 week	Oct. 15 week
Trailers/containers	123,620	124,071	125,498	118,977	121,041

Cumulative total, 45 weeks		% change from 1987
Trailers/containers	5,030,807	0.0



Source: Association of American Railroads

Freight cars

	DELIVERED 3rd quarter 1988	DELIVERED 3rd quarter 1987	ORDERED 3rd quarter 1988	ORDERED 3rd quarter 1987	ON ORDER AND UNDELIVERED Oct. 1 1988	ON ORDER AND UNDELIVERED Oct. 1 1987
Built new by carbuilders	5,605	3,848	4,487	3,951	16,107	5,535
Built new in RR shops	0	0	0	0	0	0
Built new—Total	5,605	3,848	4,487	3,951	16,107	5,535
Rebuilt	35	123	0	123	176	0
TOTAL	**5,640**	**3,971**	**4,487**	**4,074**	**16,283**	**5,535**
Locomotives (new and rebuilt)	72	37	N/A	N/A	73	8

Source: Transportation Div., AAR and American Railway Car Institute

'88 Review

Winning the numbers game

The figures were strong across-the-board, reflecting higher traffic and a good handle on costs. Deregulation had a close call in Congress but survived by a single vote.

For the railroad industry, the most important numbers in 1988 were not the impressive net-income figures posted by a number of companies through the first half and the third-quarter and, most likely, for the full year. The most important numbers in 1988 were nine and 10—nine votes in the Senate Commerce Committee in favor of making potentially-devastating changes in the Staggers Rail Act of 1980, but 10 votes against.

Reregulation lost, in the 100th Congress. But the outcome of the Commerce Committee vote could not have been predicted with any certainty right up until the night before the vote was taken in late September.

Railroads may have contributed to the uncertainty and the closeness of the vote, since two major companies were agreeable to what they thought was a compromise proposal dealing with changes in Staggers. But then changes were made, amendments dealing with competitive access and with mandatory requirements regarding railroad use of private freight cars, and the "compromise" fell apart, with the railroads re-uniting and the 10-9 vote saving the day, at least until the 101st Congress is in session.

Workers put finishing touches on Bethlehem Steel's Beth-Combo, a late '88 entry in the booming freight-car market. BN will test-market eight of the combination box/hopper cars.

Other important numbers? These are some:

—Railroad revenue ton-miles continued to climb. Contrary to earlier forecasts, the industry may not have its first one-trillion-ton-mile year, but it won't miss by much, with the total expected to hit 995 billion ton-miles.

—Intermodal trailer/container loadings, which have set new record highs in every year since deregulation, are estimated at 5.5 million loads, up from 5.1 million last year.

—Grain traffic was at a record high in the second half of 1987 and hit another record high in the first half of '88.

—With cost-cutting continuing and despite continued pressure on freight rates, bottom lines are climbing. Last year, a couple of railroads edged close to being what the Interstate Commerce Commission calls revenue-adequate. Revenue adequacy, by the ICC's definition, is a return on investment equal to the cost of capital, which is now around 12%. For 1988, it appears that some railroads will closely approach or even cross that threshold—among them, Burlington Northern, Kansas City Southern, Norfolk Southern, and Union Pacific. For the industry as a whole the rate of return could climb to around 8%, a long way from 12% but an even longer way from the 1.58% of just ten years ago.

—Employment continued to drop this year, with Class I carriers edging ever closer to the 200,000 level, a level thought unthinkable just a few years ago. Railroads and rail unions were free to serve notice last April 1 for contract changes which could have become effective July 1, but while opening proposals were put forth, little else happened on the collective-bargaining front. In the meantime, two railroads that had tried to convince rail labor organizations of the need for change and had tried to make serious change palatable were rebuffed, and each then moved to make changes on its own where it was free to do so under applicable agreements.

—The railway supply industry began actually "supplying" again, after spending most of the 1980s searching for orders without much success. Year-end 1988 will probably see a 20,000th new freight car delivered, a total not reached since 1981. Locomotive orders were also building up, with one railroad alone, Union Pacific, ordering more new units than were delivered to all roads in all of 1983. Ironically, perhaps, 1988 was also the year in which General Motors' Electro-Motive Division for all practical purposes closed its locomotive assembly line at LaGrange,

Ill., moving assembly operations to GM's locomotive facility at London, Ont.

• **Signs and portents.** Of course, not all of the notable events of 1988 have had to do with numbers. Among the other notables:

—The railroad map in the West was redrawn, with the consolidation of Denver & Rio Grande Western and Southern Pacific Transportation. After rejecting merger of SPT with Santa Fe in 1987 and then refusing to reopen the case, the Commission promised to handle the Rio Grande-Southern Pacific proposal expeditiously, and it did. The application was filed early this year, and the deal was closed before mid-October, which is probably an ICC record for speedy handling of a major merger proceeding. The consolidation, however, created an imbalance among railroads. Had Santa Fe been allowed to merge with SPT, there would have been three major carriers in the West and three in the East. Now, there are four in the West, of which Santa Fe is the smallest, leading to questions as to whether the next few years may see attempts to create true transcontinental railroads.

—Railroads and the Federal Railroad Administration continued efforts, sometimes together and sometimes separately, to battle the problem of alcohol and drug abuse in the workplace. Operation Red Block, a joint labor-management program aimed at rehabilitation, won praise. But the FRA continued to take a harder line. Original FRA rules on testing, including post-accident and probable-cause testing, were under review by the U.S. Supreme Court. But even as the high court was considering those rules, FRA issued another set, these providing for random drug testing.

—The Rail Safety Improvement Act of 1988 was passed and signed by President Reagan. It was perhaps the most comprehensive legislative look at rail safety since passage of the original act in 1970. The key change: Heretofore, FRA has had safety authority only over companies. Now, it also has authority over individuals, contract and exempt.

—Also before the Supreme Court was a case instituted by rail labor and based on its demand that it be represented in sale of rail lines, the sales that during the 1980s have spawned what's now known as the "regional railroad movement." The position of the Interstate Commerce Commission has been that line sales to non-railroad entities do not require application of labor-protective conditions. Labor disagrees, looking at sales that have resulted in creation of non-union railroads and unionized railroads with agreements not matching those in effect on predecessor railroads. Labor pressed its case, even though it could be proved that these line sales preserved rail service and rail employment.

—Trailer Train, an institution in the industry, got an unexpected, and unexpectedly serious, challenge on its filing with the ICC for an extension of its pooling agreement and antitrust exemption. The challenge came from the U.S. Department of Justice and The Greenbrier Companies (which include a freight-car leasing company and one of TT's carbuilding suppliers, Gunderson). The challenge centered on Trailer Train's alleged monopsony, related to purchasing power. Heading into December, the case had not been decided, but all concerned were expecting a decision from the Commission before the end of the year.

—After a couple of decades of railroads becoming conglomerates or forming the basis for conglomerates, railroads once again seemed to be becoming railroads. Cases in point: Burlington Northern, Chicago & North Western, Southern Pacific-Rio Grande, and Illinois Central. Other companies, including CSX and Santa Fe Southern Pacific, were working on restructuring programs that put increased emphasis on the transportation parts of the business.

—Amtrak survived another year, with increasing traffic, reduced dependence upon subsidy, Congressional authorizations for future-year funds, and comprehensive tests of three types of equipment to cut running times on the New York-Boston part of the Northeast Corridor to make that route as competitive with airline shuttle flights as the New York-Washington part of the route has become.

—There were two significant labor-management confrontations, both involving the United Transportation Union. One was with Guilford Transportation Industries, the other with Chicago & North Western. As 1988 wound down, the Guilford-UTU matter remained unresolved, with arbitrators' rulings going against it that the carrier was appealing. The C&NW-UTU dispute did come to resolution, but not without two brief strikes and Congressional intervention. North Western was determined to reduce crew consist, UTU was determined to resist, an emergency board sided mostly with the railroad, and it was the board's recommendations that Congress imposed. Among the key points in the "settlement": The railroad would be free to cut one brakeman position, and arbitration would apply if further cuts were proposed; and there would be no so-called lonesome pay for remaining crew members working reduced-crew assignments. Congress intervened not because of the potential interruption of freight service but because 40,000 Chicago-area commuters would be inconvenienced by a strike. North Western was prepared to continue to operate its core freight services with supervisors and replacement personnel, but it did not have the opportunity to keep the railroad running in the face of a strike.

• **The supply side.** If there was another major story about Railroading-'88, it fell under the broad heading of technology. These were among the developments:

—For locomotives, the capabilities of the microprocessor-controlled units of both General Electric and the General Motors Locomotive Group were expanded. And the possibilities in a.c. traction were expanded by GM beyond prototypes for Amtrak to include testing to prove the value of a.c. in heavy-duty freight operations. And, the old, traditional locomotive control stand began giving way to a console-type arrangment of throttle, brake and other controls, an arrangement that has been common in Canada for years. Santa Fe was the first to look at new control (and carbody) designs; Union Pacific was the first to order.

—Advanced train control systems con-

(Continued on p. 40)

1988 at a Glance

	1988*	% change from 1987
Revenue ton-miles	995 billion	+5.8%
Operating revenues	$28.2 billion	+6.0%
Trailer/container loadings	5.5 million	+7.9%
Freight cars delivered	20,000	+53.8%
Locomotives delivered	400	+333.0%

**Railway Age estimates.*

'88 Review

(Continued from p. 28)

tinued under test, mainly with BN and the ARES system developed by Rockwell International and with UP and AMCI, the former a multi-part control system making use of both satellite and ground-based equipment and the latter a ground-based, transponder-based system.

"Not the least of our problems," observed Peter J. Detmold, executive director of the ATCS project, "is how to demonstrate that the return on ATCS will justify investment that may well reach $150 million on the largest railways." One factor that is hard to quantify but should not be overlooked, he said, is the vastly greater service reliability that ATCS will make possible.

—While train-control systems continued to be developed and tested, railroads and suppliers were once again heading into programs to identify individual pieces of equipment, avoiding the term "automatic car identification" because of all the negatives associated with aci and calling it something, anything, else, such as automtic vehicle identification. Again, BN led in testing systems, using equipment from General Railway Signal and Union Switch & Signal-Amtech. But the first major buyers were American President Companies and C&NW.

—Freight cars? Probably the biggest development was the introduction of the 125-ton double-stack container well car, placed in service just as domestic containerization appeared to be ready to begin its long-predicted growth. Introduction of the high-capacity railcar also coincided with the introduction of the 53-foot container, joining the container family of 20-, 40-, 45, and 48-foot units, and bringing another complication as to what size container can be loaded in the top position, where and on what cars. Technological development in stack-car equipment, however, was not without its problems. As the year drew to a close, several derailments involving stack cars were under investigation in order to determine a cause or causes.

Late in the year, there were roll-out ceremonies for two new freight cars for which their builders have high hopes. One was Bethlehem Steel's 100-ton-plus, multi-purpose Beth-Combo, which can be adapted for hauling cargoes ranging from grain to lumber; Burlington Northern ordered an initial eight of the combination box/hopper cars. Another promising newcomer was Transit America's "high capacity coal car for the 1990s," a two-unit, three-truck articulated car known as the HiCube IIQD, an outgrowth of the HiCube 2000 that was developed under the AAR's Track-Train Dynamics Program.

—Developmental work and testing by Servo and Harmon indicated that acoustic detection methods can in fact provide early warning of possible failure of roller bearings in freight-car trucks. Used in conjunction with infrared hotbox detectors, the acoustic devices could go a long way toward solving two problems, one associated with the rapidity of bearing failure once the process begins, and the second associated with readings resulting in train-stops in which no bearing problem can be found. One railroad's vice president-operations, looking at the dozens of papers to be presented at September's meeting of the Coordinated Mechanical Associations, noted that a presentation on acoustic detection might well be the most significant item on the whole program, dealing with a technology which, he said, railroads would line up to buy. ■

The Light Rail Specialist

Project: Galveston, Texas Park Board Beachfront Historic Redevelopment and Transit Program

Solution: Miner Railcar Services designed and built 4 early-1900's-style trolley vehicles to fit into Galveston's historic theme. The carefully crafted, wood trimmed trolleys act as a major area tourist attraction. Also designed as a transit program to reduce local traffic and parking problems, the solidly-built, diesel-electric trolleys use modern electrical systems and controls for economical, and reliable operation.

For innovative engineering and finely skilled construction of your next light rail vehicle, call the specialist.

Miner's trolley features diesel-electric drive with 4-40 hp. Traction motors and a maximum speed of 25 mph. All electric drive is available.

Miner Railcar Services, Inc.

MINER ENTERPRISES INC

Phone: 412/658-9061

P.O. Box 2208
New Castle, PA 16102

FAX: 412/658-7639

Circle 75 on Reader Service Card